REMARKS

I. Support for the Amendments to the Specification and the Claims

Claims 1, 5, 8, and 12 have been amended, and new claims 17-24 have been added. Claims 3, 6, 7, and 13-16 have been canceled without prejudice to their pursuit in an appropriate continuation or divisional application. Currently, claims 1, 2, 4, 5, 8-12, and 17-24 are pending in the application.

Support for the amendments to the specification and to the claims can be found in the application (including the specification, figures, claims) as originally filed, such as on pages 7-24, in the Examples, and in the original and amended claims. Support for the Related Art can be found on page 1 of the original application. The amendment to claim 5 is technical. The amendment to claim 8 makes the language of claim 8 consistent with the amended language of claim 1. The amendment to claim 12 in part makes the language of claim 12 consistent with the amended language of claim 1. Claim 16, which duplicated claim 12, has been canceled.

Support for the amendments to claims 1, 5, 8, and 12 and for new claims 17-19 can be found throughout the specification as originally filed, particularly on pages 7-12. Additional support for the amendments to claim 1 can be found from page 7, line 21, to page 8, line 2; on page 8, lines 24-26; from page 9, line 5, to page 12, line 20; from page 13, line 12, to page 15, line 2; from page 18, line 20, to page 19, line 18; on page 28, lines 7-8; and in the Examples. Additional support for the amendments to claim 8 and for new claim 19 can be found, e.g., from page 7, line 23, to page 8, line 2; and in the Examples. Additional support for the amendment to claim 5 and for new claims 17 and 18 can be found, e.g., on page 8, lines 24-26; from page 9, line 5, to page 12, line 20; from page 13, line 12, to page 15, line 2; from page 19, line 29, to page 21, line 2; and in the Examples. Additional support for the amendments to claim 12 can be found, e.g., on page 8, line 12; from page 8, line 29, to page 9, line 4; from page 10, line 25, to page 11, line 3; on page 15, lines 3-17; from page 17, line

10, to page 18, line 19; and in the Examples. Additional support for new claims 20-24 can be found, e.g., on page 28, lines 1-8; and in the Examples.

II. Status of the Claims

Previously, claims 1-16 were pending in the application. Claims 1, 5, 8, and 12 have been amended, and new claims 17-24 have been added. Claims 3, 6, 7, and 13-16 have been canceled without prejudice to their pursuit in an appropriate continuation or divisional application. Currently, claims 1, 2, 4, 5, 8-12, and 17-24 are pending in the application.

III. Status of the Case

On August 13, 2004, a Final Office Action was mailed. An Amendment after Final Rejection was mailed on January 13, 2005, along with a Notice of Appeal and a Third Substitute Specification. In the Advisory Action, mailed February 18, 2005, the Examiner noted that the proposed Amendment would not be entered.

On June 7, 2005, a Letter was faxed to the Examiner with a draft claim for purposes of discussion, and on June 8, 2005, the Examiner and Applicants' undersigned representative had an Interview. During the Interview the objection to the specification was discussed, and the Examiner noted that the current specification is that which was submitted on May 4, 2004 (as also noted in the Interview Summary).

In addition to the present Amendment, Applicants submit herewith a Request for Continued Examination (RCE), the Declaration of Dr. Navin Pathirana, the Fourth Substitute Specification, and additional materials.

IV. The Rejection of the Priority Claim to the Provisional Application is Traversed

In the Office Action mailed 31 October 2003, the Examiner had acknowledged the priority claim of the present application to a domestic provisional application, presumably U.S. Provisional Application No. 60/175,307 (filed January 10, 2000). Applicants thanked the Examiner for acknowledging the priority claim.

In the Office Action, mailed 13 August 2004, the Examiner denied priority claims to any U.S. Provisional Applications, despite the fact that Applicants have claimed priority only of U.S. Provisional Application 60/175,307, filed January 10, 2000. (The other provisional applications were mentioned as describing inventions "related to" the present application. U.S. Provisional Application 60/175,307 was filed with a cross-reference paragraph mentioning the other provisional applications and the language was simply included in the present U.S. utility application. These applications were incorporated by reference, along with other utility applications, all of which are now listed in the Related Art.)

With respect to U.S. Provisional Application 60/175,307, however, the Examiner states:

> The above-noted '307 application was submitted to the Office on 10 January 2000 but did not receive a filing date. Accordingly the claim for benefit of priority to the '307 application...is DENIED. [Par. 3; p. 3.]

Applicants respectfully traverse the Examiner's rejection of the priority claim of U.S. Provisional Application 60/175,307.

U.S. Provisional Application 60/175,307 was filed on January 10, 2000. On February 14, 2000, a Notice of Incomplete Provisional Application requesting names and residences of inventors was mailed with a two-month deadline for a response. On November 27, 2000, a Petition for Revival of a Provisional Application for a Patent Abandoned Unintentionally was filed. Two Status Inquiries were subsequently filed.

The Office of Petitions granted the Petition for Revival on August 2, 2001. On 15 September 2004, a Withdrawal of Previously Sent Notice and a Filing Receipt were issued. Copies of these three items are enclosed herewith for the Examiner's convenience. The Official Filing Receipt lists an official filing date of January 10, 2000, along with the names and residences of both inventors. The Withdrawal of Previously Sent Notice states:

> It has come to the attention of the Office that the Notice on 02/14/2000 was sent in error. Please disregard that Notice.

Therefore, U.S. Provisional Application 60/175,307 has been granted a filing date of January 10, 2000, and the Applicants respectfully assert the priority claim to U.S. Provisional Application 60/175,307, filed January 10, 2000.

V. The Objection to the Specification is Traversed, but Accommodated in Part

The Examiner has objected to the specification on several grounds, which will be addressed in separate groups. Some of these objections were previously discussed in the Amendments mailed with the Second Substitute Specification and the Request for Continued Examination on 30 April 2004 and with the Third Substitute Specification on 13 January 2005.

Meanwhile, in the Office Action mailed 13 August 2004, the Patent Office alleges:

> The substitute specification has NOT been entered as it has been found to contain new matter previously entered and which was objected to in the last Office action. [P. 3, par. 5.]

During the Interview the objection to the specification was discussed, and the Examiner noted that the current specification is that which was submitted on May 4, 2004 (as also noted in the Interview Summary). Because Applicants have made some amendments to

the specification, however, Applicants have submitted a Fourth Substitute Specification based on the "second" Substitute Specification, which was mailed on May 4, 2004.

A. The Objection Alleging Improper Omnibus Language of Incorporation by Reference is Traversed, but Accommodated in Part

The Patent Office has objected to the specification "as documents have been improperly incorporated by reference" (page 3, par. 6). The Examiner specifically cites the paragraphs at page 49, lines 3-7, and at page 98, lines 3-7, which incorporate "all publications, patents and patent applications mentioned in this specification."

Applicants respectfully disagree for the reasons previously outlined in the Amendment mailed 30 April 2004. Moreover, Applicants note that similar phraseology can be found in many issued patents. In order to further the timely prosecution of the present application, however, Applicants have removed the two paragraphs indicated by the Examiner.

For the reasons outlined above and in the Amendment mailed 30 April 2004, Applicants respectfully submit that the remaining references specifically incorporated by reference meet the requirements of the courts and the Patent Office.

B. The Objection to the Specification on the Grounds under 35 U.S.C. §132 is Traversed, but Accommodated in Part

The Examiner objects to the additions to the specification on pages 20-89, 98-99, and 102 of the Second Substitute Specification under 35 U.S.C. §132 as introducing new matter. Applicants respectfully disagree.

The Patent Office again quotes *Advanced Display Systems Inc. v. Kent State University* (Fed. Cir. 2000) 54 USPQ2d 1673, 1679 at length:

> Incorporation by reference provides a method for integrating material from various documents into a host document--a patent or printed publication in an anticipation determination--by citing such material in a manner that makes it clear that the material is effectively part of the host document as if it were explicitly contained therein. See General Elec. Co. v. Brenner, 407 F.2d 1258, 1261-62, 159 USQP 335, 337 (D.C. Cir. 1968); In re Lund, 376 F.2d 982, 989,153 USPQ 625, 631 (CCPA 1967). **To incorporate material by reference, the host document must identify with detailed particularity what specific material it incorporates and clearly indicate where that material is found in the various documents.** See In re Seversky, 474 F.2d 671, 674, 177 USPQ 144, 146 (CCPA 1973) (providing that incorporation by reference requires a statement "clearly identifying the subject matter which is incorporated and where it is to be found"); In re Saunders, 444 F.2d 599, 602-02, 170 USPQ 213, 216-17 (CPA 1971) (reasoning that a rejection or anticipation is appropriate only if one reference "expressly incorporates a particular part" of another reference); National Latex Prods. Co. v. Sun Rubber Co., 274 F.2d 224, 230, 123 USPQ 279, 283 (6th Cir. 1959) (requiring a specific reference to material in an earlier application in order to have that material considered a part of a later application); cf. Lund, 376 F.2d at 989, 13 USPQ at 631 (holding that **a one sentence reference to an abandoned application is not sufficient to incorporate from the abandoned application into a new application).** (Par. 1; italics in original; bold emphasis added by Examiner.)

Applicants respectfully traverse the rejection for the reasons noted in the previous Amendment mailed 30 April 2004 and assert that the cases cited by the Patent Office are distinguishable from the situation with respect to the present application.

First, it should be noted that in In re Seversky (474 F.2d at 673-74), the U.S. Court of Customs & Patent Appeals reviewed three related applications, namely, a "grandparent" application, a continuation-in-part "parent" application, and a continuation-in-part of the parent application, with respect to disclosure of a Venturi gas inlet. The grandparent application disclosed the Venturi gas inlet, but the parent application neither directly disclosed the Venturi gas inlet, nor expressly stated that it incorporated the disclosure of the grandparent by reference. In holding that the Venturi gas inlet of the grandparent application was not

incorporated by reference, the court noted that there was "**no 'incorporation-by-reference' language whatsoever**" and the "**only relation** to [the grandparent] is indicated by the simple statement **that it is a 'continuation-in-part'** thereof" (In re Seversky, 474 F.2d at 673-74 (bold emphasis added)).

Second, it should be noted that in In re Lund, 376 F.2d at 989, the U.S. Court of Customs & Patent Appeals was concerned with whether **the Examiner** could use **an example in the parent application** as **an anticipatory disclosure** of a continuation-in-part patent during prosecution of another patent application when there was neither sufficient disclosure in the CIP application nor an express statement that it incorporated the disclosure of the parent by reference. The Court held that the example disclosed in the parent application was not incorporated by reference for purposes of anticipatory disclosure, stating that "**we do not think that the single sentence by which [CIP applicant] refers to his earlier application – 'The present application is a continuation-in-part application of our application Serial No. 763,806, filed September 29, 1958 (now abandoned)' – is sufficient in and of itself** to render Example 2 of the abandoned [parent] application part of the patent disclosure as if fully set out therein" (376 F.2d at 989 (emphasis added)).

Neither of these cases is applicable to the present application. Applicants respectfully assert that the cases cited by the Patent Office are distinguishable from the situation with respect to the present application.

The Patent Office further cites MPEP 608.01(p)I, but this is not decisive as the references were incorporated by reference for descriptions of specific methods or substances:

> Mere reference to another application, patent, or publication is not an incorporation of anything therein into the application containing such reference for the purpose of the disclosure required by 35 U.S.C. 112, first paragraph. In re de Seversky, 474 F.2d 671, 117 USPQ 144 (CCPA 1973). In addition to other requirements for an application, the referencing application should include an identification of the referenced patent, application, or publication. Particular attention should be directed to specific

portions of the referenced document where the subject matter being incorporated may be found. [Emphasis added by Examiner.]

Applicants respectfully disagree for reasons already expressed *supra*.

Applicants will address the Examiner's remarks concerning pages 20-89 first, followed by a discussion of pages 98-99 and 102.

As noted, the incorporation-by-reference statement in the present application is not simply a bald statement of incorporation-by-reference, but rather refers the reader to a method for producing cDNA.

The specification states:

> In the practice of the invention, cDNA molecules or cDNA libraries are produced by mixing one or more nucleic acid molecules obtained as described above, which is preferably one or more mRNA molecules such as a population of mRNA molecules, with one or more polypeptides having reverse transcriptase activity under conditions favoring the reverse transcription of the nucleic acid molecule by the action of the enzymes to form one or more cDNA molecules (single-stranded or double-stranded). Thus, the method of the invention comprises (a) mixing one or more nucleic acid templates (preferably one or more RNA or mRNA templates, such as a population of mRNA molecules) with one or more reverse transcriptases and (b) incubating the mixture under conditions sufficient to make one or more nucleic acid molecules complementary to all or a portion of the one or more templates. Such methods may include the use of one or more DNA polymerases. The invention may be used in conjunction with methods of cDNA synthesis such as those described in the Examples below, or others that are well-known in the art [references omitted], to produce cDNA molecules or libraries. **In a preferred embodiment, the cDNA may be produced using the methods detailed in United States patent application serial number 09/076,115 and/or United States provisional application serial number 60/122,395 filed March 2, 1999.** (P. 19, ll. 9-31; bold and underlined emphasis added; references omitted.)

First, unlike the grandparent and parent applications in In re Seversky and In re Lund, respectively, **the applications cited in the present application are expressly incorporated**

by reference. Unlike the incorporation-by-reference statement in the present application, **the "one sentence reference" in In re Lund does not include an express incorporation by reference** of the parent application – merely a statement concerning priority.

Second, the incorporation-by-reference statement of the present application is **set forth in a manner generally approved by the USPTO – methods for producing cDNA**. Such a sentence may be found in a great many issued patents, which would have to be invalidated if a more detailed statement were required.

Third, the incorporation-by-reference statement in the present application is not simply a bald statement of incorporation-by-reference, but rather refers the reader to a method for producing cDNA. In accordance with the MPEP, the references have been identified by their respective numbers and by the subject matter for which they are incorporated.

Further with respect to alleged new matter, Applicants refer the Examiner to the additional arguments concerning other portions of the specification in which cDNA methods were detailed or produced. (See also, the Declaration of Dr. Navin Pathirana, filed herewith.)

Applicants had previously attempted to accommodate the Examiner by deleting material in pages 20-89, which is not specifically directed to methods for producing cDNA, but the Examiner did not enter the previous Amendment, mailed 13 January 2005. Applicants have filed herewith a Fourth Substitute Specification deleting the quoted matter, but note that these applications were incorporated by reference in the provisional application and in the present application as originally filed.

Finally, with respect to the Patent Office's previous objection to the specification alleging incorporation of essential material by reference, Applicants refer the Examiner to the references cited at page 19, lines 11-15, and elsewhere, which provide methods of cDNA synthesis "that are well-known in the art;" to the Declaration of Dr. Navin Pathirana (filed herewith); and to the Amendment mailed previously, particularly the Amendment mailed 30

April 2004. Moreover, Applicants note that, in one aspect of the present invention, the mRNA is isolated from genomic DNA in a sample using the solid medium described above, and then the mRNA is used as a template for cDNA synthesis. One example is provided at page 28, lines 1-20, of the application as filed. Other examples are provided, e.g., at page 29, lines 19-27, and at page 31, lines 13-22, of the application as originally filed. Additional examples are provided throughout the Examples from page 24, line 25, to page 32, line 5, of the application as originally filed and elsewhere in the specification.

In view of the foregoing remarks, Applicants respectfully assert that the documents have been not been improperly incorporated by reference. Therefore, Applicants respectfully request reconsideration and withdrawal of the Examiner's objection to the specification.

If the Examiner's objections to pages 20-89 have not been overcome, Applicants respectfully request that the Examiner contact Applicants' representative to arrange an interview.

In the Office Action mailed 13 August 2004, the Examiner had stated:

> As an initial matter, it appears that the presence of multiple versions of a substitute specification may be causing some confusion as to just what is being objected to. The pages that are objected to by the Office are those that are found in the marked copy of the specification submitted on 11 March 2003. [P. 6, par. 13.]

Applicants respectfully submit that in the Amendment mailed 30 April 2004, and in the Amendment mailed 13 January 2005, they were referring to the Substitute Specification mailed 5 March 2003 (return postcard date stamped as received on 11 March 2003).

With respect to pages 98-99 of the substitute specification mailed on 5 March 2003 (date stamped as received on 11 March 2003), Applicants wish to place on record a comparison of the paragraph added at page 98, line 23, to page 99, line 18, with the paragraph deleted at page 99, line 18, to page 100, line 13. Attention is directed to Table 1, provided for

the Examiner's convenience, which shows a side-by-side comparison between these added and deleted sections in the Substitute Specification mailed March 5, 2003. (Attention is also directed from page 28, line 23, to page 29, line 17, of the specification as originally filed; from page 96, line 24, to page 97, line 18, of the Second Substitute Specification filed 30 April 2004; and from page 95, line 24, to page 96, line 18, of the Fourth Substitute Specification filed herewith.) The Patent Office will readily note that the "added" paragraphs contain sequence identifiers in compliance with the rules concerning sequence listings, while the "deleted" paragraphs do not. The "additions" were made in an effort to bring the application into conformity with the rules concerning sequence listings. To cancel these paragraphs would remove the sequence identifiers required by the rules.

Table 1.

Added from page 98, line 23, to page 99, line 18 (underlined in Substitute Specification):	Deleted from page 99, line 18, to page 100, line 13 (bracketed in Substitute Specification):[1]
The results of the amplification of nucleic acids stored on solid supports are shown in Figures 2-4. Figure 2 shows the results of the amplification of nucleic acids from HeLa cells. Eluted RNA was precipitated from washes taken from 2-mm punches of HeLa cell samples stored at -20° and -70°C for 1 year as described above. The amplification targets were as follows: Panel A; a 626 bp sequence from b-actin mRNA was amplified using the following thermocycling conditions: 94°C for 1 min, followed by 40 cycles of 94°C for 30 s; 60°C for 30 s and 72°C for 1.5 min; forward and reverse primer sequences were	The results of the amplification of nucleic acids stored on solid supports are shown in Figures 2-4. Figure 2 shows the results of the amplification of nucleic acids from HeLa cells. Eluted RNA was precipitated from washes taken from 2-mm punches of HeLa cell samples stored at -20° and -70°C for 1 year as described above. The amplification targets were as follows: Panel A; a 626 bp sequence from b-actin mRNA was amplified using the following thermocycling conditions: 94°C for 1 min, followed by 40 cycles of 94°C for 30 s; 60°C for 30 s and 72°C for 1.5 min; forward and reverse primer sequences were

[1] See also, from page 28, line 23, to page 29, line 17, of the specification as originally filed; from page 96, line 24, to page 97, line 18, of the Second Substitute Specification filed 30 April 2004; and from page 95, line 24, to page 96, line 18, of the Fourth Substitute Specification filed herewith.

5'CCTCGCCTTTGCCGATCC3' (SEQ ID NO: 9) and 5'GGATCTTCATGAGGTAGTCAGTC3' (SEQ ID NO: 10), respectively. Panel B; a 1.08-kb sequence of RPA (replication protein A) mRNA was amplified using the following thermocycling conditions: 94°C for 1 min, followed by 40 cycles of 94°C for 30 s; 55°C for 30 s and 72°C for 1.5 min; forward and reverse primer sequences were 5'CAAGATGTGGAACAGTGGATTC3' (SEQ ID NO: 7) and 5'CATCTATCTTGATGTTGTAACAAGC3' (SEQ ID NO: 8), respectively. and Panel C: a 5.76-kb sequence of a clathrin-like protein (D21260) mRNA was amplified using the following thermocycling conditions: 94°C for 1 min, followed by 35 cycles of 94°C for 20 s; 60°C for 30 s and 68°C for 7 min; forward and reverse primer sequences were 5'CCCAGTGACAGGAGGAGACCATA3' (SEQ ID NO: 11) and 5'ATCCTGTGCTTTTTCTGTGGGAC3' (SEQ ID NO: 12), respectively. For Panels A and B, Lanes 1-3 and 4-6 are from samples stored at -20°C and -70°C, respectively subsequent to sample application onto FTA® GeneCards, whereas lane 7 is a negative control where SUPERSCRIPT II RT was omitted from the RT reaction. Lanes labeled M are a 1 kb ladder size markers. For Panel C, lanes l, positive control, HeLa RNA, Lanes-2 and 3 are from samples stored at -70°C subsequent to sample application	5'CCTCGCCTTTGCCGATCC3' and 5'GGATCTTCATGAGGTAGTCAGTC3', respectively. Panel B; a 1.08-kb sequence of RPA (replication protein A) mRNA was amplified using the following thermocycling conditions: 94°C for 1 min, followed by 40 cycles of 94°C for 30 s; 55°C for 30 s and 72°C for 1.5 min; forward and reverse primer sequences were 5'CAAGATGTGGAACAGTGGATTC3' and 5'CATCTATCTTGATGTTGTAACAAGC3', respectively. and Panel C: a 5.76-kb sequence of a clathrin-like protein (D21260) mRNA was amplified using the following thermocycling conditions: 94°C for 1 min, followed by 35 cycles of 94°C for 20 s; 60°C for 30 s and 68°C for 7 min; forward and reverse primer sequences were 5'CCCAGTGACAGGAGGAGACCATA3' and 5'ATCCTGTGCTTTTTCTGTGGGAC3', respectively. For Panels A and B, Lanes 1-3 and 4-6 are from samples stored at -20°C and -70°C, respectively subsequent to sample application onto FTA® GeneCards, whereas lane 7 is a negative control where SUPERSCRIPT If RT was omitted from the RT reaction. Lanes labeled M are a 1 kb ladder size markers. For Panel C, lanes l, positive control, HeLa RNA, Lanes-2 and 3 are from samples stored at -70°C subsequent to sample application onto FTA® GeneCards, whereas lane 4 is the negative control.

onto FTA® GeneCards, whereas lane 4 is the negative control.	

With respect to page 102 of the substitute specification mailed on 5 March 2003 (date stamped as received on 11 March 2003), Applicants wish to place on record a comparison of the paragraph added at page 102, lines 8-25, with the paragraph deleted at page 102, line 25, to page 103, line 11. Attention is directed to Table 2, provided for the Examiner's convenience, which shows a side-by-side comparison between these added and deleted sections in the Substitute Specification mailed March 5, 2003. (Attention is also directed to page 31, lines 13-29, of the specification as originally filed; to page 99, lines 11-28, of the Second Substitute Specification filed 30 April 2004; and to page 98, lines 11-28, of the Fourth Substitute Specification, filed herewith.) Again, the Examiner will readily note that the "added" paragraphs contain sequence identifiers in compliance with the rules concerning sequence listings, while the "deleted" paragraphs do not. The "additions" were made in an effort to bring the application into conformity with the rules concerning sequence listings. To cancel these paragraphs would remove the sequence identifiers required by the rules.

Table 2.

Added at page 102, lines 8-25 (underlined in Substitute Specification):	Deleted from page 102, line 25, to page 103, line 11 (bracketed in Substitute Specification):[2]
Poly(A+)RNA was directly isolated from 2.25 x 10^6 BHK-21 cells stored on FTA® paper as described above except that the biotinylated oligonucleotide(dT) had special adapter sequences necessary for library construction. The	Poly(A+)RNA was directly isolated from 2.25 x 10^6 BHK-21 cells stored on FTA® paper as described above except that the biotinylated oligonucleotide(dT) had special adapter sequences necessary for library construction. The

[2] See also, page 31, lines 13-29, of the specification as originally filed; page 99, lines 11-28, of the Second Substitute Specification filed 30 April 2004; and page 98, lines 11-28, of the Fourth Substitute Specification, filed herewith.

primer inludes a *Not* I recognition site and has the sequence $(Biotin)_4$ GACTAGTTCTAGAT CGCGAGCGG CCGCCCTTTTT TTTTTTTTTTTT TTTTTTTT (SEQ ID NO: 13); (see WO 98/51699 and United States application serial number 09/076,115). As a positive control, poly(A+) RNA was isolated total RNA prepared by TRIzol reagent from the same number of cells. Double-stranded cDNA was made and cloned into plasmid vectors as described in WO 98/51699 and United States application serial number 09/076,115. The number of primary clones obtained from the poly(A+)RNA was the same whether the mRNA was isolated directly from FTA® or from TRIzol-purified total RNA. The average insert size of the libraries was determined by colony PCR using primers to the plasmid vector. The average insert size for the FTA®-derived material was greater than that for the library constructed from the positive control poly(A+)RNA, 1000bp vs 600 bp. This indicates that cDNA libraries of good quality can be made from mRNA isolated directly from samples stored on FTA®.	primer inludes a *Not* I recognition site and has the sequence $(Biotin)_4$ GACTAGTTCTAGAT CGCGAGCGG CCGCCCTTTTTTTTTTTTTTTTTTTTTTT; (see WO 98/51699 and United States application serial number 09/076,115). As a positive control, poly(A+) RNA was isolated total RNA prepared by TRIzol reagent from the same number of cells. Double-stranded cDNA was made and cloned into plasmid vectors as described in WO 98/51699 and United States application serial number 09/076,115. The number of primary clones obtained from the poly(A+)RNA was the same whether the mRNA was isolated directly from FTA® or from TRIzol-purified total RNA. The average insert size of the libraries was determined by colony PCR using primers to the plasmid vector. The average insert size for the FTA®-derived material was greater than that for the library constructed from the positive control poly(A+)RNA, 1000bp vs 600 bp. This indicates that cDNA libraries of good quality can be made from mRNA isolated directly from samples stored on FTA®.

Applicants respectfully submit that no new matter has been added to pages 98-99 and 102 by the changes shown in Tables 1 and 2.

Again, Applicants respectfully traverse the Examiner's objections regarding the introduction of new matter into the specification under 35 U.S.C. §132. Therefore,

Applicants respectfully request reconsideration and withdrawal of the Examiner's objection to the specification.

VI. Rejection of Claims 1-16 Under 35 U.S.C. § 102(e) (pre-AIPA) Is Traversed in Part and Rendered Moot in Part

The Examiner has rejected claims 1-16 under 35 U.S.C. 102(e) (pre-AIPA) as being anticipated by Burgoyne (U.S. Patent No. 5,976,572; granted 11/2/99; filed 11/26/97) (paragraphs 14-21). This rejection is rendered moot with respect to claims 3, 6, 7, and 13-16, which have been canceled without prejudice to their pursuit in an appropriate divisional or continuation application. The rejection is respectfully traversed with respect to claims 1, 2, 4, 5, and 8-12.

The Patent Office alleges:

> 16. Burgoyne teaches at length of composition for storage of DNA and RNA, and methods of use. At column 9, fourth paragraph, Burgoyne teaches that RNA that has been immobilized on the matrix is subjected to reverse transcriptase so to synthesize DNA (applicant's cDNA), and that the cDNA can then be used in a variety of assays, including PCR, LCR, and RFLP. The performance of such methods speaks to the cDNA being double stranded in at least one embodiment.
> 17. Column 3 first full paragraph, teaches that the "composition of the dry solid medium includes a weak base, a chelating agent, an anionic detergent and optionally uric acid or a urate salt."
> 18. Column 6, fifth paragraph, teaches a plethora of suitable solid supports, including cellulose, nitrocellulose, hydrophilic polymers including synthetic hydrophilic polymers (e.g., polyester, polyamide, carbonate polymers), polytetrafluoethylene, fiberglass and porous ceramics.
> 19. Column 6, last paragraph, speaks explicitly of the inclusion of a composition that 'protects against degradation of GM [genetic material; RNA or DNA]'
> 20. Column 5, second paragraph, teaches a plethora of biological sources from which mRNA can be isolated and stored. Cells, viruses, and preparations from biological materials are specifically identified (claim 16). [Pars. 16-20; pp. 6-7.]

Applicants respectfully disagree, but have amended claims 1 and 8 in order to further prosecution in a timely manner. Claim 1 currently reads as follows:

> 1 (currently amended). A method of producing one or more cDNA molecules comprising:
>
> (a) contacting a sample comprising a cell or a virus with a solid medium, wherein:
>
> (i) the sample comprises mRNA and genomic DNA;
>
> (ii) the mRNA comprises an mRNA template of interest; and
>
> (iii) wherein the solid medium comprises:
>
> - a matrix; and
> - a composition for inhibiting degradation of the mRNA template, wherein:
>   - the composition comprises a detergent or surfactant; and
>   - the composition is sorbed to the matrix then dried prior to contact with the sample;
>
> (b) sorbing at least a portion of the mRNA template to the solid medium;
>
> (c) ***eluting the mRNA from the solid medium while retaining the genomic DNA***; and
>
> (d) contacting the mRNA with one or more reverse transcriptases under conditions sufficient to synthesize one or more cDNA molecules complementary to all or a portion of the mRNA template of interest. [All emphasis added.]

Applicants respectfully submit that the disclosure of Burgoyne does not teach the elution of the mRNA from the solid medium while retaining the genomic DNA, as now claimed in step c of claim 1. Claims 2, 4, 5, and 8-12 are dependent on claim 1, either directly or indirectly through one or more intervening claims.

In view of the foregoing remarks, Applicant respectfully asserts that the present invention is not anticipated by Burgoyne. Therefore, Applicant respectfully submits that claims 1, 2, 4, 5, and 8-12 fulfill the requirements of 35 U.S.C. § 102(e) and requests reconsideration accordingly.

VII. Request for Acknowledgement of Information Disclosure Statements

In addition to the Information Disclosure Statements already acknowledged by the Examiner, Applicants have mailed Information Disclosure Statements on 2 October 2001, 26 September 2002, 25 November 2002, and 20 May 2003. Applicants wish to bring these references to the Examiner's attention, along with any references filed concurrently herewith, and respectfully request that the Examiner acknowledge the same. Applicants thank the Examiner accordingly.

VIII. Conclusion

In view of the foregoing amendments and remarks, the present application is respectfully considered in condition for allowance. An early reconsideration and notice of allowance are earnestly solicited.

It is believed that all outstanding rejections have been addressed by this submission and that all the claims are in condition for allowance. If discussion of any amendment or remark made herein would advance this important case to allowance, the Examiner is invited to call the undersigned as soon as convenient.

Applicants hereby request a four-month extension of time for the Amendment and accompanying materials and hereby submit the requisite fee accordingly. If a petition for an additional extension of time is required, then the Examiner is requested to treat this as a conditional petition for an additional extension of time. Although it is not believed that any additional fee (in addition to the fee concurrently submitted) is required to consider this submission, the Commissioner is hereby authorized to charge our deposit account no. 04-1105 should any fee be deemed necessary.

Respectfully submitted,

Date: July 13, 2005

Kathryn A. Piffat, Ph.D. (Reg. No. 34,901)
EDWARDS & ANGELL, LLP
P.O. Box 55874
Boston, Massachusetts 02205
Telephone: 617-439-4444
Facsimile: 617-439-4170

Customer No. 21874
BOS2_498930.1

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
60/175,307	01/10/2000	Mindy D. Goldsborough	0942.4610003

CONFIRMATION NO. 1438

STERNE KEESLER GOLDSTEIN & FOX
1100 NEW YORK AVENUE NW
SUITE 600
WASHINGTON, DC 200053934

WITHDRAWAL NOTICE

OC000000013808923

Date Mailed: 09/15/2004

WITHDRAWAL OF PREVIOUSLY SENT NOTICE

It has come to the attention of the Office that the Notice on 02/14/2000 was sent in error. Please disregard that Notice. The application is complete and will be processed for examination. The Official Filing Receipt is enclosed. We apologize for any inconvenience this has caused.

A copy of this notice MUST be returned with the reply.

Customer Service Center
Initial Patent Examination Division (703) 308-1202

PART 1 - ATTORNEY/APPLICANT COPY

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY.DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
60/175,307	01/10/2000		150	0942.4610003	4		

CONFIRMATION NO. 1438

STERNE KEESLER GOLDSTEIN & FOX
1100 NEW YORK AVENUE NW
SUITE 600
WASHINGTON, DC 200053934

FILING RECEIPT

OC000000013809262

Date Mailed: 09/15/2004

Receipt is acknowledged of this provisional Patent Application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

Mindy D. Goldsborough, Gaithersburg, MD;
Donna K. Fox, Sykesville, MD;

Power of Attorney:

Brian Del Buono--42473

If Required, Foreign Filing License Granted: 02/11/2000

The number of your priority application, to be used for filing abroad under the Paris Convention is,

US60/175,307

Projected Publication Date: None, application is not eligible for pre-grant publication

Non-Publication Request: No

Early Publication Request: No

Title

METHODS FOR THE STORAGE AND SYNTHESIS OF NUCLEIC ACIDS

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).